REBUILDING LOUISIANA'S ECONOMY: IDENTIFYING OCCUPATIONS CRITICAL TO RECOVERY OF THE NEW ORLEANS REGION AND SOUTH LOUISIANA Prepared For OCCUPATIONAL FORECASTING CONFERENCE By

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INTRODUCTION

Hurricanes Katrina and Rita have massively disrupted the economic and social fabric of Louisiana. Over a million Louisiana's residents were dislocated, and as much as 400,000 residents were evacuated outside of the state. It is estimated that as many as 175,000 residents may never return to Louisiana, finding opportunities else. A preliminary analysis of the employment and income impact of Hurricane Katrina suggest that overall statewide employment is likely to fall by well over 150,000 jobs between the 2nd and 4th quarters of 2005, with as much as \$29 billion decline in earnings by place of work. Given this economic contraction, it is imperative that little time be wasted in both identifying opportunities and specifically jump-starting the economy in the New Orleans region. ISO property Claim Service Unit released a report on November 7 stating that preliminary estimates of personal and commercial property loss for Louisiana were around \$25.04 billion. Again, this does not include the income loss due to the disruption of the state's economy.

On the opposite side of the ledger, however, is the fact that this property loss will result in a transfer of \$25.04 billion to Louisiana citizens and businesses to help re-build their lives and property. This amount plus the cost to re-build infrastructure, particularly in the New Orleans region, will ultimately result in a potential building boom that could change the economic landscape of Louisiana. However, this potentially valuable investment in the state's economy and population could be wasted by a "business as usual" mentality that served to perpetuate a lackluster state economy that grew at a rate far less than its competitors in the region. This is particularly true of the New Orleans region.

BUILDING A RECOVERY ECONOMY

This paper identifies industries and occupations essential to maximizing recovery of the New Orleans area economy and the rest of south Louisiana. **These industries and occupations are viewed as "foundation industries and occupations" necessary to build a broader economy**. No one knows exactly how many jobs will be required to place Hurricane Katrina in our economic past. However, using reasonable assumptions, both economic and non-economic, one can get a handle on the required needs. Two scenarios are developed. They provide a range estimate of what might be the employment demand based upon the assumptions.

METHODOLOGY

Employment demand is based upon assumptions, identified later in this report, on the growth in output by select industries and their corresponding impact on the total economy. The occupations identified only reflect the occupational needs of these select industries. These industries are:

| | NAICS |
|---------------------------|---|
| Construction | 23 |
| Transportation | 481,484 |
| Utilities | 22 |
| Wholesale trade | 42 |
| Retail trade | 44-45 |
| Warehousing and storage | 493 |
| Select service industries | pt. 53, 54, 55 56, 61, 62, 71, 72, 81, 92 |

Once assumptions in the expected change in output of these industries are made, they are used to generate employment demand both in the recovery industries and the overall economy.

DEFINITIONS

Short-term recovery demand – industry and occupational demand that is expected to occur between now and 2009 and is limited to the recovery industries.

Ten-Year Long-Term Demand – industry and occupational demand that was identified by the Occupational Forecasting Conference over the period 2002-2012 and represents the long-term trend of growth across all industries in Louisiana.

Gross State Product – the value of goods and services produced by select or all industries in Louisiana

ASSUMPTIONS

Re-building an economy and a region will take time. The demand for the identified occupations in this report assumes that the number of dwelling units either under construction or repair could range from a high of 70,000 dwelling units to a low of 20,000 dwelling units by 2009. Whether the upper range can be attained will depend on how effectively local, state and Federal levels of government can address policies issues that will affect investment decisions by residents and businesses. Ultimately, the re-building of the New Orleans region, and particularly the City of New Orleans, will rest on market forces. Government can spend billions on the clean-up and infrastructure building or re-building. However, only confidence and actions by the citizens of the region and by those who see opportunities for growth will determine the economic future of the New Orleans region and the State of Louisiana. Below are specific assumptions which are not exclusive, but are part of a series of structural changes that could facilitate a higher growth path for the region.

SPECIFIC ASSUMPTIONS

- 1) Targeted tax policies such as: (a) policies that attract high growth industries (b) encourage capital investment and innovation, (c) rationalize tax policies. These policies are assumed to raise the Gross State Product growth rate by 1.5% annually.
- 2) State and local government reform: (a) model building code for all new construction, (b) education restructuring that focuses on failing schools, (c) re-examining governmental functions with the objective of consolidating where possible, and (d) increasing transparency and accountability.
- 3) Regionalization and professional governance of select public services, particularly in the New Orleans region (i.e. regionalization of currently fragmented levee protection, public transportation.)
- 4) Re-building residential and business confidence through a long-term commitment by the Federal government to incrementally invest in flood protection against a Category 5 storm in the New Orleans region.
- 5) Workforce training crossing all (secondary and post-secondary) educational institutions; flexible and adaptive training that meets short-term and long-term needs of employers, employees and those seeking opportunities.

OUTPUT AND EMPLOYMENT CHANGES BETWEEN NOW AND 2009

| UPPER GROWTH RANGE IMPACTS | | | Gross Output (Current \$) | Employment |
|-------------------------------|-------------------|----------------------------|---------------------------|------------|
| | All Industries | | 24% | 7.4% |
| | | Construction | 83% | 22.1% |
| | | Transportation & Utilities | 11% | 6.7% |
| | | Wholesale Trade | 39% | 29.5% |
| | | Retail Trade | 43% | 13.8% |
| | | Warehousing & Storage | 34% | 3.7% |
| | | All Other Industries | 18% | 4.2% |
| LOWER GROWTH RANGE IMPACTS | | | | |
| | All | | 17% | 3.7% |
| | Industries | | | |
| | | Construction | 65% | 11.9% |
| | | Transportation & Utilities | 6% | 1.9% |
| | | Wholesale Trade | 30% | 23.1% |
| | | Retail Trade | 31% | 4.4% |
| | | Warehousing & Storage | 29% | 19.9% |
| | | All Other Industries | 13% | 1.9% |

Source: Dr. Raymond J. Brady, Systems Solutions Consulting (October 2005)

HISTORICAL FOOTNOTES

How does the high end forecast compare to the historical high periods of growth of the 1970s? Between 1977 and 1981, another four year period, the state's Gross State Product (GSP) increased by 97% in current \$ and employment increased by 17%. Construction increased by 79% and construction employment jumped by 25%. The point to be made is relative to the "golden years" of growth of the late 1970s, this forecast is conservative. It represents a reasonably attainable goal, if all of the mechanisms are put in place to move this state's economy to a growth rate by the end of this decade close to that of the "golden years." This hurricane has brought disaster to many of us. However, within this crisis lies an opportunity to re-build this great state. Do we have the perseverance, will, policies and incentives in place to do so?

RESULTS

Occupational demand is divided into three periods of highest demand during the recovery period. These periods are in the following order: (a) cleanup, (b) infrastructure rebuilding and (c) residential and non-residential rebuilding. There are occupations that are unique to each period, and there are occupations that cross the phases of economic recovery. Table 1 is a comprehensive matrix table identifying the recovery occupations in alphabetic order, the phases of highest demand for these occupations, the total demand for each occupation over all phases and by scenario. The table also contains recently developed long-term trend projections for (pre-Katrina and Rita) occupations in demand over a ten-year period at the state and

regional labor market area (RLMA). These projections were developed by the Occupational Forecasting Conference, Office of the Governor and the Louisiana Department of Labor. Specific occupations for select recovery industries are annualized and adjusted to reflect *trend* demand over the 2005 to 2009, prior to Hurricanes Katrina and Rita. These numbers are presented for comparison and relative to the impact of Hurricanes Katrina and Rita on the occupational demand of recovery industries. Also presented are 2002 statewide estimates of the total employment in each occupation. These estimates are presented to point out the potential problems of ramping up labor force training programs when in some cases one may need to increase the skilled labor supply by 25-50% to meet the recovery demand of an occupation. This cannot, in all likelihood, be done by simply training Louisiana residents because the absolute number of individuals will not be sufficient in the short-term. Historical population and labor force growth will serve as a constraint. (see "*Population And Labor Force Projections For The State and Eight Regional Labor Market Areas—2002-2012*," by R. Brady for the Occupational Forecasting Conference (November 2004)

Tables 2, 3, and 4 identify those occupations that are specifically related to one of the phases of recovery as defined earlier in this report. The data are presented in Table 1 but in a different format.

Table 5 is the total of number industries identified as part of the "recovery industry" classification. They do not represent the total industry structure, but rather "foundation industries" necessary to recover from this natural disaster.

Table 6 identifies the top fifty occupations that have the highest demand for labor. They are ranked from the highest to the lowest.

FINAL NOTE

Because the recovery environment remains fluid, this analysis will be updated on a continuous basis and should be used to supplement the current long-term 2002-2012 occupational projections series.

APPENDIX

TABLE 1: RECOVERY OCCUPATIONS AND DEMAND FORECASTS HIGHEST PERIOD OF DEMAND

TOTAL STATEWIDE NEW DEMAND

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EMPLOYMENT INFRASTRUCTURE RESIDENTIAL AND NON-TREND GROWTH **CLEANUP** SHORT TERM REBUILDING RESIDENTIAL REBUILDING **PROJECTIONS OF RECOVERY DEMAND** RECOVERY OVER THE NEXT **OCCUPATIONS PRIOR** FOUR YEARS TO HURRICANES **OES OCCUPATIONAL NAME** KATRINA AND RITA UPPER RANGE OF DEMAND LOWER RANGE OF DEMAND FOR NEXT FOUR YEAR Χ 47-2021 Brickmasons and Blockmasons 70 330 130 730 37-2019 Building Cleaning Workers, All Other Χ Χ Χ 210 130 100 1,100 47-2031 Carpenters Х 3.500 1.400 750 8.000 47-2041 Carpet Installers Х 350 220 20 150 41-2011 Cashiers Х Χ Χ 6,900 4,000 1,800 47,000 47-2051 Cement Masons and Concrete Finishers Χ 600 230 160 1,300 Х 47-4011 Construction and Building Inspectors Х Χ 270 170 70 1.200 Χ 47-2061 Construction Laborers X Х 6.100 3,500 1,120 15,000 13-1051 Cost Estimators Χ Χ 570 230 120 1,300 Х Х 41-2021 Counter and Rental Clerks Х 850 500 560 4.400 353022 Counter Attendants, Cafeteria, Food Concession, and Coffee Shop Χ Х Χ 1.020 950 200 3,600 47-2081 Drywall and Ceiling Tile Installers Χ 850 620 160 1,300 47-2111 Electricians Χ Χ 2,800 800 7,400 1,200 17-3025 Environmental Engineering Technicians X 120 20 120 150 172081 Environmental Engineers Χ X 320 260 80 530 47-4031 Fence Erectors Х 200 130 20 170 47-1011 First-Line Supervisors/Managers of Construction Trades and Extract Х X X 520 7.000 1.500 1.200 53-1021 First-Line Supervisors/Managers of Helpers, Laborers, and Material Χ Х 30 220 110 530 37-1012 First-Line Supervisors/Managers of Landscaping, Lawn Service, and Χ Χ 150 100 60 710 41-1011 First-Line Supervisors/Managers of Retail Sales Workers Х Χ 600 300 560 12,000 47-2042 Floor Layers, Except Carpet, Wood, and Hard Tiles Х 250 10 190 130 47-2043 Floor Sanders and Finishers X 190 150 10 180 47-2121 Glaziers Χ 200 120 50 490 47-4041 Hazardous Materials Removal Workers Χ 490 240 160 600 49-9021 Heating, Air Conditioning, and Refrigeration Mechanics and Installer X Х 930 80 2.300 400 47-3019 Helpers, Construction Trades, All Other Χ 420 170 40 1,000 47-3011 Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters Χ 210 80 10 460 47-3012 Helpers--Carpenters Х 190 1.040 700 2.200 Х 47-3013 Helpers--Electricians Χ 940 400 140 2.100 47-3014 Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons Χ 220 560 100 1,300 47-3015 Helpers--Plumbers, Pipefitters, and Steamfitters Χ 1,000 400 100 2,200 47-3016 Helpers--Roofers Χ Χ Χ 450 220 20 200 35-9031 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop Х Χ Χ 730 500 460 3,500 43-4081 Hotel, Motel, and Resort Desk Clerks Χ Χ X 400 630 200 3,000 53-7051 Industrial Truck and Tractor Operators X X Х 1.600 680 120 2.200 47-2131 Insulation Workers, Floor, Ceiling, and Wall Х 860 300 180 2.000 37-2011 Janitors and Cleaners, Except Maids and Housekeeping Cleaners Χ Χ Χ 4,400 2,800 1,520 21,000 53-7062 Laborer and Freight, Stock, and Material Movers, Hand Χ Χ Χ 4,800 2,400 680 12,000 37-3011 Landscaping and Groundskeeping Workers Х Х 6.200 1.300 800 560

| 37-2012 Maids and Housekeeping Cleaners | X | X | X | 3,000 | 1,900 | 800 | 14,000 |
|--|---|---|---|--------|--------|--------|---------|
| 49-9042 Maintenance and Repair Workers, General | | X | X | 1,800 | 1,100 | 480 | 7,900 |
| 49-9044 Millwrights | | X | X | 410 | 170 | 70 | 990 |
| 49-3042 Mobile Heavy Equipment Mechanics, Except Engines | Χ | X | | 2,000 | 1,000 | 260 | 3,000 |
| 43-9061 Office Clerks, General | X | X | X | 1,200 | 670 | 50 | 4,400 |
| 47-2073 Operating Engineers and Other Construction Equipment Operators | X | X | | 1,600 | 700 | 200 | 4,300 |
| 47-2141 Painters, Construction and Maintenance | | | X | 1,900 | 800 | 360 | 4,400 |
| 41-2022 Parts Salespersons | X | X | X | 1,300 | 500 | 70 | 3,800 |
| 47-2071 Paving, Surfacing, and Tamping Equipment Operators | | X | | 490 | 330 | 30 | 820 |
| 47-2072 Pile-Driver Operators | | X | | 120 | 110 | 10 | 160 |
| 47-2151 Pipelayers | | X | X | 670 | 420 | 60 | 1,300 |
| 47-2161 Plasterers and Stucco Masons | | | X | 450 | 250 | 50 | 470 |
| 47-2152 Plumbers, Pipefitters, and Steamfitters | | | X | 3,300 | 1,300 | 600 | 7,700 |
| 41-9022 Real Estate Sales Agents | | | X | 200 | 120 | 60 | 800 |
| 43-4171 Receptionists and Information Clerks | X | X | X | 1,600 | 1,100 | 600 | 7,500 |
| 53-7081 Refuse and Recyclable Material Collectors | X | | | 890 | 650 | 190 | 3,100 |
| 47-2171 Reinforcing Iron and Rebar Workers | | X | | 290 | 110 | 50 | 640 |
| 41-2031 Retail Salespersons | X | X | X | 5,100 | 2,500 | 1,840 | 40,000 |
| 47-2181 Roofers | X | | X | 1,090 | 750 | 100 | 910 |
| 33-9032 Security Guards | X | X | X | 2,700 | 1,800 | 1,000 | 13,000 |
| 47-2211 Sheet Metal Workers | | X | | 570 | 220 | 110 | 1,300 |
| 43-5071 Shipping, Receiving, and Traffic Clerks | X | X | X | 1,200 | 530 | 50 | 2,900 |
| 43-5081 Stock Clerks and Order Fillers | X | X | X | 3,400 | 1,300 | 40 | 14,000 |
| 47-2221 Structural Iron and Steel Workers | | X | | 730 | 300 | 100 | 1,400 |
| 512041 Structural Metal Fabricators and Fitters | | X | X | 320 | 170 | 210 | 1,100 |
| 47-2082 Tapers | | | X | 110 | 90 | 10 | 100 |
| 47-2044 Tile and Marble Setters | | | X | 170 | 130 | 40 | 270 |
| 37-3013 Tree Trimmers and Pruners | X | | | 280 | 200 | 40 | 340 |
| 53-3032 Truck Drivers, Heavy and Tractor-Trailer | X | X | X | 4,500 | 2,700 | 920 | 13,000 |
| 53-3033 Truck Drivers, Light Or Delivery Services | | X | X | 2,200 | 1,200 | 440 | 5,600 |
| 35-3031 Waiters and Waitresses | Χ | Х | X | 6,200 | 4,100 | 3,800 | 30,000 |
| TOTAL | | | | 98,280 | 53,890 | 24,490 | 365,800 |

Source: Dr. Raymond J. Brady, Systems Solutions Consulting (October 2005)

Note on Occupations: Occupations represent a detailed analysis of select industries, direct and indirect, needed in the clean-up, infrastructure rebuilding and residential/non-residential rebuilding phase. These occupations represent the "foundation" occupations necessary to support the growth of the larger economy. They are concentrated in a half-dozen or so industries in the overall economy. These occupations are found in the following industries construction, wholesale trade, retail trade, utilities, transportation, selected sectors in finance, service and government.

Note on Total New Demand: *Trend Growth Projections* reflects the latest statewide trend projections prepared by LDOL and the Louisiana Occupational Forecasting Conference. They do NOT represent the total demand over all industries, but only in those industries identified as recovery industries. *Recovery demand* represents a range forecast of demand. They represent first approximations or "ball park" estimates based upon assumptions about timing, planning and resources committed to recovery.

Definition: **Recovery demand** is that job demand associated with the rebuilding industries, providing the underlying support jobs for rebuilding the state after Hurricanes Katrina and Rita. It does not contain replacement demand. **Short-Term** is defined as 4 years or less.

TABLE 2: Recovery Occupations in Demand During Cleanup Phase

| | TABLE 2. Necovery Occupations in Demand During Cleanup I hase |
|---------|---|
| OES | NAME |
| 37-2019 | Building Cleaning Workers, All Other |
| 41-2011 | Cashiers |
| 47-4011 | Construction and Building Inspectors |
| 47-2061 | Construction Laborers |
| 41-2021 | Counter and Rental Clerks |
| 35-3022 | Counter Attendants, Cafeteria, Food Concession, and Coffee Shop |
| 47-2111 | Electricians |
| 17-3025 | Environmental Engineering Technicians |
| 17-3023 | Environmental Engineers |
| | |
| 47-1011 | First-Line Supervisors/Managers of Construction Trades and Extraction Workers |
| 53-1021 | First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand |
| 37-1012 | First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers |
| 41-1011 | First-Line Supervisors/Managers of Retail Sales Workers Hazardous Materials Removal Workers |
| 47-4041 | |
| 49-9021 | Heating, Air Conditioning, and Refrigeration Mechanics and Installers |
| 47-3013 | HelpersElectricians |
| 47-3016 | HelpersRoofers |
| 35-9031 | Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop |
| 43-4081 | Hotel, Motel, and Resort Desk Clerks |
| 53-7051 | Industrial Truck and Tractor Operators |
| 37-2011 | Janitors and Cleaners, Except Maids and Housekeeping Cleaners |
| 53-7062 | Laborer and Freight, Stock, and Material Movers, Hand |
| 37-3011 | Landscaping and Groundskeeping Workers |
| 37-2012 | Maids and Housekeeping Cleaners |
| 49-3042 | Mobile Heavy Equipment Mechanics, Except Engines |
| 43-9061 | Office Clerks, General |
| 47-2073 | Operating Engineers and Other Construction Equipment Operators |
| 41-2022 | Parts Salespersons |
| 43-4171 | Receptionists and Information Clerks |
| 53-7081 | Refuse and Recyclable Material Collectors |
| 41-2031 | Retail Salespersons |
| 47-2181 | Roofers |
| 33-9032 | Security Guards |
| 43-5071 | Shipping, Receiving, and Traffic Clerks |
| 43-5081 | Stock Clerks and Order Fillers |
| 37-3013 | Tree Trimmers and Pruners |
| 53-3032 | Truck Drivers, Heavy and Tractor-Trailer |
| 35-3031 | Waiters and Waitresses |

Source: Dr. Raymond J. Brady, Systems Solutions Consulting (October 2005)

Note: Several occupations appear in all phases of recovery

TABLE 3: OCCUPATIONS IN DEMAND DURING INFRASTRUCTURE REBUILDING PHASE

OES NAME

| 37-2019 Building Cleaning Workers, All Other |
|---|
| 41-2011 Cashiers |
| 47-4011 Construction and Building Inspectors |
| 47-2061 Construction Laborers |
| 13-1051 Cost Estimators |
| 41-2021 Counter and Rental Clerks |
| 35-3022 Counter Attendants, Cafeteria, Food Concession, and Coffee Shop |
| 47-1011 First-Line Supervisors/Managers of Construction Trades and Extraction Workers |
| 53-1021 First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand |
| 47-3016 HelpersRoofers |
| 35-9031 Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop |
| 43-4081 Hotel, Motel, and Resort Desk Clerks |
| 53-7051 Industrial Truck and Tractor Operators |
| 37-2011 Janitors and Cleaners, Except Maids and Housekeeping Cleaners |
| 53-7062 Laborer and Freight, Stock, and Material Movers, Hand |
| 37-2012 Maids and Housekeeping Cleaners |
| 49-9042 Maintenance and Repair Workers, General |
| 49-9044 Millwrights |
| 49-3042 Mobile Heavy Equipment Mechanics, Except Engines |
| 43-9061 Office Clerks, General |
| 47-2073 Operating Engineers and Other Construction Equipment Operators |
| 41-2022 Parts Salespersons |
| 47-2071 Paving, Surfacing, and Tamping Equipment Operators |
| 47-2072 Pile-Driver Operators |
| 47-2151 Pipelayers |
| 43-4171 Receptionists and Information Clerks |
| 47-2171 Reinforcing Iron and Rebar Workers |
| 41-2031 Retail Salespersons |
| 33-9032 Security Guards |
| 47-2211 Sheet Metal Workers |
| 43-5071 Shipping, Receiving, and Traffic Clerks |
| 43-5081 Stock Clerks and Order Fillers |
| 47-2221 Structural Iron and Steel Workers |
| 51-2041 Structural Metal Fabricators and Fitters |
| 53-3032 Truck Drivers, Heavy and Tractor-Trailer |
| 53-3033 Truck Drivers, Light Or Delivery Services |

Source: Dr. Raymond J. Brady, Systems Solutions Consulting (October 2005)

Note: Several occupations appear in all phases of recovery

35-3031 Waiters and Waitresses

TABLE 4: OCCUPATION IN DEMAND DURING RESIDENTIAL AND COMMERCIAL RECONSTRUCTION PHASE

OES

NAME

| 47-2021 | Brickmasons and Blockmasons |
|---------|--|
| 37-2019 | Building Cleaning Workers, All Other |
| | Carpenters |
| | Carpet Installers |
| | Cashiers |
| 47-2051 | Cement Masons and Concrete Finishers |
| 47-4011 | Construction and Building Inspectors |
| 47-2061 | Construction Laborers |
| 13-1051 | Cost Estimators |
| 41-2021 | Counter and Rental Clerks |
| 35-3022 | Counter Attendants, Cafeteria, Food Concession, and Coffee Shop |
| 47-2081 | Drywall and Ceiling Tile Installers |
| 47-2111 | Electricians |
| 17-2081 | Environmental Engineers |
| | Fence Erectors |
| | First-Line Supervisors/Managers of Construction Trades and Extraction Workers |
| | First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand |
| | First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers |
| | First-Line Supervisors/Managers of Retail Sales Workers |
| | Floor Layers, Except Carpet, Wood, and Hard Tiles |
| | Floor Sanders and Finishers |
| | Glaziers |
| | Heating, Air Conditioning, and Refrigeration Mechanics and Installers |
| | Helpers, Construction Trades, All Other |
| | HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters |
| | HelpersCarpenters |
| | HelpersElectricians |
| | HelpersPainters, Paperhangers, Plasterers, and Stucco Masons |
| | HelpersPlumbers, Pipefitters, and Steamfitters |
| | HelpersRoofers |
| | Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop |
| | Hotel, Motel, and Resort Desk Clerks |
| | Industrial Truck and Tractor Operators |
| | Insulation Workers, Floor, Ceiling, and Wall |
| | Janitors and Cleaners, Except Maids and Housekeeping Cleaners |
| | Laborer and Freight, Stock, and Material Movers, Hand |
| | Landscaping and Groundskeeping Workers |
| | Maids and Housekeeping Cleaners |
| | Maintenance and Repair Workers, General |
| | Millwrights Office Clerks Constal |
| | Office Clerks, General |
| 47-2141 | Painters, Construction and Maintenance |

- 41-2022 Parts Salespersons
- 47-2151 Pipelayers
- 47-2161 Plasterers and Stucco Masons
- 47-2152 Plumbers, Pipefitters, and Steamfitters
- 41-9022 Real Estate Sales Agents
- 43-4171 Receptionists and Information Clerks
- 41-2031 Retail Salespersons
- 47-2181 Roofers
- 33-9032 Security Guards
- 43-5071 Shipping, Receiving, and Traffic Clerks
- 43-5081 Stock Clerks and Order Fillers
- 51-2041 Structural Metal Fabricators and Fitters
- 47-2082 Tapers
- 47-2044 Tile and Marble Setters
- 53-3032 Truck Drivers, Heavy and Tractor-Trailer
- 53-3033 Truck Drivers, Light Or Delivery Services
- 35-3031 Waiters and Waitresses

Source: Dr. Raymond J. Brady, Systems Solutions Consulting (October 2005)

Note: Several occupations appear in all phases of recovery

TABLE 5: TOTAL NUMBER OF RECOVERY INDUSTRIES **NAICS INDUSTRY NAME** 236100 Residential Building Construction 236200 Nonresidential Building Construction 237100 Utility System Construction 237200 Land Subdivision 237300 Highway, Street, and Bridge Construction 237900 Other Heavy and Civil Engineering Construction 238100 Foundation, Structure, and Building Exterior Contractors 238200 Building Equipment Contractors 238300 Building Finishing Contractors 238900 Other Specialty Trade Contractors 423100 Motor Vehicle and Motor Vehicle Parts and Supplies Merchant Wholesalers 423400 Professional and Commercial Equipment and Supplies Merchant Wholesalers 423700 Hardware, and Plumbing and Heating Equipment and Supplies Merchant Wholesalers 423800 Machinery, Equipment, and Supplies Merchant Wholesalers 424400 Grocery and Related Product Wholesalers 424900 Miscellaneous Nondurable Goods Merchant Wholesalers 425100 Wholesale Electronic Markets and Agents and Brokers 441100 Automobile Dealers 441200 Other Motor Vehicle Dealers 441300 Automotive Parts, Accessories, and Tire Stores 442100 Furniture Stores 442200 Home Furnishings Stores 443100 Electronics and Appliance Stores 444100 Building Material and Supplies Dealers 444200 Lawn and Garden Equipment and Supplies Stores 445100 Grocery Stores 445200 Specialty Food Stores 445300 Beer, Wine, and Liquor Stores 446100 Health and Personal Care Stores 447100 Gasoline Stations 448100 Clothing Stores 448200 Shoe Stores 451100 Sporting Goods, Hobby, and Musical Instrument Stores 451200 Book, Periodical, and Music Stores 452100 Department Stores 452900 Other General Merchandise Stores 453200 Office Supplies, Stationery, and Gift Stores 484100 General Freight Trucking 484200 Specialized Freight Trucking 493100 Warehousing and Storage 531100 Lessors of Real Estate 531200 Offices of Real Estate Agents and Brokers 532100 Automotive Equipment Rental and Leasing

532400 Commercial and Industrial Machinery and Equipment Rental and Leasing

541300 Architectural, Engineering, and Related Services

541600 Management, Scientific, and Technical Consulting Services

532200 Consumer Goods Rental 532300 General Rental Centers 561200 Facilities Support Services

561300 Employment Services

561600 Investigation and Security Services

561700 Services to Buildings and Dwellings

561900 Other Support Services

562100 Waste Collection

562200 Waste Treatment and Disposal

562900 Remediation and Other Waste Management Services

611000 Educational Services

621100 Offices of Physicians

621200 Offices of Dentists

621300 Offices of Other Health Practitioners

622100 General Medical and Surgical Hospitals

622300 Specialty (except Psychiatric and Substance Abuse) Hospitals

623100 Nursing Care Facilities

623300 Community Care Facilities for the Elderly

713200 Gambling Industries

713900 Other Amusement and Recreation Industries

721100 Traveler Accommodation

722100 Full-Service Restaurants

722200 Limited-Service Eating Places

722300 Special Food Services

722400 Drinking Places (Alcoholic Beverages)

811100 Automotive Repair and Maintenance

811300 Commercial & Industrial Machinery & Equipment (except Automotive and Electronic) Repair & Maintenance

812100 Personal Care Services

812200 Death Care Services

812300 Drycleaning and Laundry Services

919999 Federal Government, Excluding Postal Service

929200 State Government, Excluding Education and Hospitals

939300 Local Government, Excluding Education and Hospitals

Source: Dr. Raymond J. Brady, Systems Solutions Consulting (October 2005)

Note: Several Occupations appear in all phases of recovery

| | TABLE 6: TOP FIFTY RECOVERY OCCUPATIONS RANKED BY TOTAL DEMAND | | | | |
|---------|--|---|--|--|--|
| OES | NAME | TRAINING | | | |
| | Cashiers | Short-term Tng. & Exp. | | | |
| | Waiters and Waitresses | Short-term Tng. & Exp. | | | |
| | Construction Laborers | Modterm Tng. & Exp. | | | |
| 41-2031 | Retail Salespersons | Short-term Tng. & Exp. | | | |
| 53-7062 | Laborer and Freight, Stock, and Material Movers, Hand | Short-term Tng. & Exp. | | | |
| 53-3032 | Truck Drivers, Heavy and Tractor-Trailer | Modterm Tng. & Exp. | | | |
| 37-2011 | Janitors and Cleaners, Except Maids and Housekeeping Cleaners | Short-term Tng. & Exp. | | | |
| 47-2031 | Carpenters | Long-term Tng. & Exp. | | | |
| 43-5081 | Stock Clerks and Order Fillers | Short-term Tng. & Exp. | | | |
| 47-2152 | Plumbers, Pipefitters, and Steamfitters | Long-term Tng. & Exp. | | | |
| 37-2012 | Maids and Housekeeping Cleaners | Short-term Tng. & Exp. | | | |
| | Electricians | Long-term Tng. & Exp. | | | |
| 33-9032 | Security Guards | Short-term Tng. & Exp. | | | |
| | Truck Drivers, Light Or Delivery Services | Short-term Tng. & Exp. | | | |
| | Mobile Heavy Equipment Mechanics, Except Engines | Postsecondary voc. | | | |
| | Painters, Construction and Maintenance | Modterm Tng. & Exp. | | | |
| | Maintenance and Repair Workers, General | Long-term Tng. & Exp. | | | |
| | Industrial Truck and Tractor Operators | Short-term Tng. & Exp. | | | |
| | Operating Engineers and Other Construction Equipment Operators | Modterm Tng. & Exp. | | | |
| | Receptionists and Information Clerks | Short-term Tng. & Exp. | | | |
| | First-Line Supervisors/Managers of Construction Trades & Extraction Workers | Work Exp. in a related occ. | | | |
| | Landscaping and Groundskeeping Workers | Short-term Tng. & Exp. | | | |
| | Parts Salespersons | Modterm Tng. & Exp. | | | |
| | Office Clerks, General | Short-term Tng. & Exp. | | | |
| | Shipping, Receiving, and Traffic Clerks | Short-term Tng. & Exp. | | | |
| | Roofers | Modterm Tng. & Exp. | | | |
| | HelpersCarpenters | Short-term Tng. & Exp. | | | |
| | Counter Attendants, Cafeteria, Food Concession, and Coffee Shop | Short-term Tng. & Exp. | | | |
| | HelpersPlumbers, Pipefitters, and Steamfitters | Short-term Tng. & Exp. | | | |
| | HelpersElectricians | Short-term Tng. & Exp. | | | |
| | Heating, Air Conditioning, and Refrigeration Mechanics and Installers | Long-term Tng. & Exp. | | | |
| | Refuse and Recyclable Material Collectors | Short-term Tng. & Exp. | | | |
| | Insulation Workers, Floor, Ceiling, and Wall | Modterm Tng. & Exp. | | | |
| | Counter and Rental Clerks | - · · · · · · · · · · · · · · · · · · · | | | |
| | Drywall and Ceiling Tile Installers | Short-term Tng. & Exp. | | | |
| | | Modterm Tng. & Exp. | | | |
| | Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop Structural Iron and Steel Workers | Short-term Tng. & Exp. | | | |
| | | Long-term Tng. & Exp. | | | |
| | Pipelayers | Modterm Tng. & Exp. | | | |
| | Hotel, Motel, and Resort Desk Clerks | Short-term Tng. & Exp. | | | |
| | Cement Masons and Concrete Finishers | Long-term Tng. & Exp. | | | |
| | First-Line Supervisors/Managers of Retail Sales Workers | Work Exp. in a related occ. | | | |
| | Cost Estimators | Bachelor's degree | | | |
| | Sheet Metal Workers | Modterm Tng. & Exp. | | | |
| | HelpersPainters, Paperhangers, Plasterers, and Stucco Masons | Short-term Tng. & Exp. | | | |
| | Hazardous Materials Removal Workers | Modterm Tng. & Exp. | | | |
| | Paving, Surfacing, and Tamping Equipment Operators | Modterm Tng. & Exp. | | | |
| | HelpersRoofers | Short-term Tng. & Exp. | | | |
| | Plasterers and Stucco Masons | Long-term Tng. & Exp. | | | |
| | Helpers, Construction Trades, All Other | Short-term Tng. & Exp. | | | |
| 49-9044 | Millwrights | Long-term Tng. & Exp. | | | |

Source: Dr. Raymond J. Brady, Systems Solutions Consulting (October 2005)

Note: Several occupations appear in all phases of recovery

Short-term Tng. & Exp. = Short-term training and experience (up to 1 month of on-the-job experience)

Mod.-term Tng. & Exp. = Moderate-term training and experience (1 to 12 months of combined on-the job experience and informal training)

Long-Term Tng. & Exp. = Long-Term training and experience (more than 12 months of on-the-job training)